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SERIAL NO.: 10/086,632  
FILED: March 4, 2002  
Page 2

### AMENDMENT TO THE CLAIMS

Please add or amend the claims to read as follows, and cancel without prejudice or disclaimer to resubmission in a divisional or continuation application claims indicated as cancelled:

1. **(Currently amended)** A system comprising:
  - ~~a hardware component; and~~
  - ~~a firmware component coupled to said hardware component and able to~~  
establish a noise level in a chip a noise floor register to store a noise floor value of a  
chip;
  - a noise event counter to count a number of noise events in which a direct-  
current offset value of said chip is bigger than said noise floor value; and
  - an approximator to update said noise floor register with an approximated noise  
floor value by performing the following operations one or more times:
    - causing said noise event counter to count said noise events; and
    - updating said noise floor value based on the number of said noise events.
2. **(Currently amended)** A system according to claim 1, wherein said noise level is  
comprises a noise level selected from the group consisting of a noise level of a  
receiver of said chip, and a noise level of a transmitter of said chip.
3. **(Currently amended)** A system according to claim 1, wherein ~~said noise level is a~~  
noise level of a transmitter of said chip approximator is able to cause said noise  
event counter to count said noise events during at least two different time periods.
4. **(Currently amended)** A system according to claim 1, ~~wherein said hardware~~  
~~comprises comprising:~~
  - a noise register to store a noise value;

APPLICANTS: SAGIV, Amir et al.  
SERIAL NO.: 10/086,632  
FILED: March 4, 2002  
Page 3

a noise register updater to update said noise value based on a comparison between said noise value and said direct-current offset value;

a fine tuner to adjust the approximated noise floor value based on a plurality of noise values retrieved from said noise register.

~~at least one digital to analog converter;~~

~~at least one comparator able to receive output of said converter;~~

~~at least one register able to be read by said firmware; and~~

~~at least one register able to be written to by said firmware.~~

5. **(Currently amended)** A system according to claim 14, wherein said ~~firmware~~ comprises fine tuner comprises:

a noise tracker to retrieve said plurality of noise values from said noise register at a plurality of time intervals, respectively; and

an evaluator to adjust said noise floor value based on said plurality of noise values.

~~an approximator; and~~

~~a fine tuner able to fine tune the approximation of said approximator.~~

6. **(Currently amended)** A method comprising

~~approximating a first noise level in an individual chip; and~~

~~fine tuning said first noise level to produce a second noise level.~~

storing a noise floor value of a chip; and

determining an approximated noise floor value by performing the following operations one or more times:

APPLICANTS: SAGIV, Amir et al.  
SERIAL NO.: 10/086,632  
FILED: March 4, 2002  
Page 4

counting a number of noise events in which a direct-current offset value of a chip is bigger than said noise floor value; and

updating said noise floor value based on the number of said noise events.

7. **(Currently amended)** A method according to claim 6 comprising, wherein said approximating comprises:

determining said first noise level according to a hardware result; storing a noise value;

updating said noise value based on a comparison between said noise value and said direct-current offset value;

fine tuning the approximated noise floor value based on a plurality of retrieved noise values.

8. **(Currently amended)** A method according to claim 6, wherein said fine tuning comprises:

determining said second noise level according to a hardware result.

retrieving said plurality of noise values at a plurality of time intervals, respectively; and

adjusting said noise floor value based on said plurality of noise values.

9. **(Currently amended)** A method according to claim 6, wherein said ~~approximating comprises:~~ determining said approximated noise floor value comprises counting said noise events during at least two different time periods.

reading from a noise event counter register; and

writing to a noise floor register.

10. **(Cancelled)**

APPLICANTS: SAGIV, Amir et al.  
SERIAL NO.: 10/086,632  
FILED: March 4, 2002  
Page 5

11. (Cancelled)

12. (Cancelled)

13. (Cancelled)

14. (Currently amended) A system comprising:

a card; and

a chip attached to said card, said chip comprising:

a noise floor register to store a noise floor value of said chip;

a noise event counter to count a number of noise events in which a direct-current offset value of said chip is bigger than said noise floor value; and

an approximator to update said noise floor register with an approximated noise floor value by performing the following operations one or more times:

causing said noise event counter to count said noise events; and

updating said noise floor value based on the number of said noise events.

~~a hardware component; and~~

~~a firmware component coupled to said hardware component and able to establish a noise level in said chip.~~

15. (Currently amended) A system according to claim 14 comprising; ~~wherein said noise level is a noise level of a receiver of said chip.~~

a noise register to store a noise value;

a noise register updater to update said noise value based on a comparison between said noise value and said direct-current offset value;

a fine tuner to adjust the approximated noise floor value based on a plurality of noise values retrieved from said noise register.

16. **(Currently amended)** A system according to claim 1415, wherein said ~~noise level~~

~~is a noise level of a transmitter of said chip.~~ fine tuner comprises:

a noise tracker to retrieve said plurality of noise values from said noise register  
at a plurality of time intervals, respectively; and

an evaluator to adjust said noise floor value based on said plurality of noise  
values.

17. **(Currently amended)** A home phone networking system comprising:

two or more computers, at least one of said computers ~~each~~-having a chip  
comprising:

a noise floor register to store a noise floor value of said chip;

a noise event counter to count a number of noise events in which a direct-  
current offset value of said chip is bigger than said noise floor value; and

an approximator to update said noise floor register with an approximated noise  
floor value by performing the following operations one or more times:

causing said noise event counter to count said noise events; and

updating said noise floor value based on the number of said noise events.

~~a hardware component; and~~

~~a firmware component coupled to said hardware component and able to~~  
~~establish a noise level in said chip.~~

18. **(Original)** A system according to claim 17, further comprising:

one or more peripheral devices coupled to at least one of said computers.